Allowance

1.   **Claims 1-10, 14, 16, 18-21, 25, 26, 28-30, 32, 33, 36, 38, 42, 44-50** are

pending and allowed in the application. Please see the examiner's amendment

and reasons for allowance below.

Examiner's Amendment

2.   An examiner's amendment to the record is attached to the Office Action.

Should the changes and/or additions be unacceptable to applicant, an

amendment may be filed as provided by 37 CFR 1.312. To ensure consideration

of such an amendment, it MUST be submitted no later than the payment of the

issue fee.

Authorization for this examiner's amendment was given in a telephone

interview with Dr. Samuel Epstein Reg. 57,328 on 22 September 2008. See

attached interview summary.

3.   The following claims represent the claims pending in the application.

1. (Currently amended) A service support system comprising:
a service request interface including a service request processor and configured to
communicate with a service request system;
a dispatch system interface including a dispatch processor and configured to
communicate with a dispatch system configured to utilize historical work
force and work load statistics to formulate dispatch instructions;

a service support processor configured to execute instructions residing in a service

assignment module; and

a memory to store:

the service assignment module comprising processor-executable

instructions that when executed by the service support processor,

cause the service support processor to:

assign a first service request to a technician associated with an

Incumbent Local Exchange Carrier (ILEC) from a pool of

available technicians based at least in part on a historical

performance statistic of the technician, and a first location

of the technician determined at least in part from global

positioning location data associated with a Global

Positioning System (GPS) locator, the first service request

received via the service request interface;

notify the technician of the first service request via the dispatch

system interface; and

assign a second service request to the technician based at least in

part on a second location of the technician after receiving

service order completion data and frame order completion

data related to the first service request, wherein the service

order completion data and the frame order completion data

related to the first service request indicate that tasks

associated with the first service request are complete.

2. (Previously presented) The service support system of claim 1, further
comprising a geo-location interface configured to access the GPS locator to determine the
first location of the technician, the second location of the technician, or any combination
thereof.

3. (Previously presented) The service support system of claim 1, further comprising a service request status interface to access status data associated with the first service request, the second service request, or any combination thereof.

4. (Original) The service support system of claim 3, wherein the service request status interface is a web-based interface.

5. (Currently amended) The service support system of claim 3, wherein the service request status interface is accessible to a competitive local exchange carrier ~~and wherein the technician is associated with an Incumbent Local Exchange Carrier (ILEC)~~.

6. (Original) The service support system of claim 1, further comprising:
a frame system interface configured to access a frame operation management
    system, the service assignment module configured to transfer frame
    related service requests to the frame operation management system via the
    frame system interface.

7. (Original) The service support system of claim 1, further comprising:
a scoring interface configured to access a technician scoring system, the
    technician scoring system storing an efficiency scoring associated with the
    technician.

8. (Original) The service support system of claim 1, further comprising:
a statistical knowledge interface configured to access a statistical knowledge
    system, the statistical knowledge system storing statistical data associated
    with the service request.

9. (Original) The service support system of claim 1, further comprising:
a billing system interface configured to communicate with a billing system, the
    billing system to receive completion data associated with the service
    request.

10. (Original) The service support system of claim 1, further comprising a user interface to provide data associated with the technician.

11-13. (Canceled).

14. (Currently amended) A work force administration system comprising:

a dispatch interface configured to communicate with a technician dispatch system;

a processor to execute instructions stored in memory; and

a memory accessible to the processor, the memory storing a dispatch module

comprising computer-executable instructions that when executed, cause

the processor to:

receive a service order via a service request interface;

access technician statistics associated with each of a plurality of

technicians, the technician statistics indicating an expected travel

time to a location associated with the service order and an expected

time remaining to complete a current task, wherein the expected

travel time for each respective technician is based on a location of

the respective technician relative to the location associated with the

service order, wherein the location of the respective technician is

determined at least in part from a global positioning location

received from a Global Positioning System (GPS);

assign at least one task of the service order to a technician of the plurality

of technicians, wherein the technician is associated with an

Incumbent Local Exchange Carrier (ILEC), wherein the

assignment is based at least in part on the technician statistics of

each of the plurality of technicians while the technician is engaged

in the current task;

utilize historical work force and work load statistics to formulate dispatch

instructions associated with the service order; and

transfer service instructions associated with the service order via the

dispatch interface to the technician dispatch system.

15. (Canceled).

16. (Currently amended) The work force administration system of claim 14, wherein the dispatch module utilizes the global positioning location received from the GPS system based at least in part on GPS data generated by a GPS locator associated with the technician to formulate the dispatch instructions.

17. (Canceled).

18. (Currently Amended) A system comprising:

a mobile technician interface configured to communicate with a mobile technician
       monitoring system;

a processor adapted to execute instructions stored in memory; and

a memory accessible by the processor, the memory storing:

       a frame order management system interface including processor-
              executable instructions that when executed, cause the processor to
              directly manipulate a central office equipment management system
              via communication with a frame order management system;

       a web-based order status reporting interface;

       a dispatch module that utilizes historical work force and work load
              statistics to formulate dispatch instructions associated with a
              service request;

       an assignment module including processor-executable instructions that
              when executed, cause the processor to:
              assign a first task of [[a]] the service request via the mobile
                     technician interface wherein the first task is assigned based
                     at least in part on Global Positioning System (GPS) data
                     received from a Global Positioning System (GPS); and
                     [[to]]
              assign a second task of the service request via the frame order
                     management system interface[[,]];
              wherein the first task or the second task is assigned to a technician
                     associated with an Incumbent Local Exchange Carrier
                     (ILEC); and

       an order status monitoring module including additional processor-
              executable instructions that when executed, cause the processor to
              access the mobile technician monitoring system via the mobile
              technician interface to receive service order completion data
              associated with the first task and configured to access the frame

order management system via the frame order management system
interface to receive frame order completion data associated with
the second task, and to provide an order status associated with the
service request based on the service order completion data and the
frame order completion data via the web-based order status
reporting interface.

19. (Previously presented) The system of claim 18, wherein the additional
processor-executable instructions within the order status monitoring module, when
executed, cause the processor to report a complete status associated with the service
request upon receipt of both the service order completion data and the frame order
completion data.

20. (Previously presented) The system of claim 18, further comprising an internal
service management interface configured to communicate with an internal service
management system, and wherein the additional processor-executable instructions within
the order status monitoring module, when executed, cause the processor to access the
internal service management system via the internal service management interface to
receive internal service completion data.

21. (Currently amended) The system of claim 18, further comprising:
a service order request interface configured to communicate with a service order
        request system; and
[[an]] wherein the ~~order~~ dispatch module is configured to access the service order
        request system to receive the service request.

22-24. (Canceled).

25. (Previously presented) The system of claim 18, further comprising an
inventory provisioning interface configured to access a public switch telephone network
inventory system.

26. (Currently amended) The system of claim 18, wherein the <u>web-based</u> order status reporting interface is configured to provide access to a competitive local exchange carrier.

27. (Canceled)

28. (Currently amended) <u>The system of claim 18, wherein the</u> [[A]] ~~service~~ <u>web-based</u> order status <u>reporting</u> interface <u>comprises</u> ~~comprising~~:
     a processor to post a web page, the web page based at least in part upon
          processor-executable instructions associated with the web page and stored
          in memory; and
     a memory storing an order status monitoring module comprising the processor-
          executable instructions associated with the web page that when executed
          by the processor, provides access to:
          <u>the</u> service order completion data ~~associated with a service request~~;
          <u>the</u> frame order completion data ~~associated with the service request, the~~
               ~~frame order completion data based at least in part on work~~
               ~~completed on central office equipment or regional office~~
               ~~equipment~~; and
          a service request status associated with the service order completion data
               and the frame order completion data.

29. (Currently amended) The ~~service order status interface~~ <u>system</u> of claim 28, wherein the web page is accessible by a competitive local exchange carrier.

30. (Currently amended) [[A]] The method of claim 38, to facilitate service dispatch, the method further comprising:

~~communicating with a service request system via a service request interface to receive a service request;~~

~~determining a location of a technician of a plurality of available technicians based on near-real-time Global Positioning System (GPS) data;~~

~~assigning the service request to the technician based at least in part on a historical technician performance statistic and the location of the technician; and~~

notifying the first technician of the first task ~~service request~~ via a dispatch system interface.

31. (Canceled).

32. (Currently amended) The method of claim [[30]] 38, further comprising accessing status data associated with the service request via a service request status interface.

33. (Original) The method of claim 32, wherein the service request status interface is a web-based interface.

34-35. (Canceled).

36. (Currently amended) The method of claim [[30]] 38, further comprising accessing a technician scoring system via a scoring interface, the technician scoring system storing an efficiency scoring associated with the technician.

37. (Canceled).

38. (Currently amended) A method comprising:

assigning a first task related to a service request to a first technician via a mobile

technician interface, wherein the first task is assigned based at least in part

on a technician location determined at least in part based on data received

from a Global Positioning System (GPS) locator;

assigning a second task related to the service request to a second technician via a

frame order management system interface[[;]], wherein the first technician

or the second technician is associated with an Incumbent Local Exchange

Carrier (ILEC);

formulating dispatch instructions based at least in part on historical work force

and work load statistics;

accessing a mobile technician monitoring system via the mobile technician

interface to receive service order completion data associated with the first

task;

accessing a frame order management system interface to receive frame order

completion data associated with the second task; and

providing an order status associated with the service request based on the service

order completion data and the frame order completion data via a web-

based order status reporting interface.

39-41. (Canceled).

42. (Currently amended) The service support system of claim 1, wherein the
second ~~current~~ location of the technician is different from a third location, wherein the
third location is associated with the first service request.

43. (Canceled).

44. (Currently amended) The system of claim [[43]] 18, wherein the GPS data is
received from a GPS locator associated with a service delivery vehicle.

46. (Previously presented) The system of claim 18, wherein the second task is associated with work on central office equipment.

47. (Previously presented) The method of claim 38, wherein the second task is associated with work on central office equipment or work on regional office equipment.

48. (Previously presented) The method of claim 38, wherein the frame order management system interface is configured to directly manipulate a central office equipment management system.

49. (Previously presented) The system of claim 1, wherein the GPS locator is associated with a service delivery vehicle.

50. (Previously presented) The system of claim 30, wherein the GPS data is received from a GPS locator associated with a service delivery vehicle.

Reasons for Allowance

6.   The following is a statement of reasons for the indication of allowable subject matter:

The prior art references most closely resembling the Applicant's claimed invention are **Weigel,** Don; Cao, Buyang; "Applying GIS and OR Techniques to Solve Sears Technician-Dispatching and Home Delivery Problems", Jan/Feb 1999, Interfaces, 29, 1, ABI/INFORM Global, p.112. (hereinafter **Weigel**), **Bogart US 6,163,607** (hereinafter **Bogart**), **Lesaint** US 6,578,005 (hereinafter **Lesaint**) and Norand (see the prosecution history for the various webpages for Norand's handheld Pen*key wireless computer- References A, B, C and D) (hereinafter

Norand)

As for independent **Claim 1,** none of the prior art of record, taken

individually or in any combination, teach, inter alia,

a service request interface including a processor that communicates with a

service request system; a dispatch system interface including a processor that

communicates with a dispatch system that utilizes historical work force and work

load statistics to formulate dispatch instructions; a processor configured to

execute instructions residing in a service assignment module; and a memory that

stores instructions that when executed by the service support processor, cause

the service support processor to: assign a first service request to a technician

associated with an Incumbent Local Exchange Carrier (ILEC) from a pool of

available technicians based at least in part on a historical performance statistic of

the technician, and a first location of the technician determined at least in part

from global positioning location data associated with a Global Positioning System

(GPS) locator, the first service request received via the service request interface;

notify the technician of the first service request via the dispatch system interface;

and assign a second service request to the technician based at least in part on a

second location of the technician after receiving service order completion data

and frame order completion data related to the first service request, wherein the

service order completion data and the frame order completion data related to the

first service request indicate that tasks associated with the first service request

are complete.

As for independent **Claim 14**, none of the prior art of record, taken

individually or in any combination, teach, inter alia,

a dispatch interface configured to communicate with a technician dispatch

system; a processor to execute instructions stored in memory; and

a memory accessible to the processor, the memory storing a dispatch module

comprising computer-executable instructions that when executed, cause the

processor to: receive a service order via a service request interface;

access technician statistics associated with each of a plurality of technicians, the

technician statistics indicating an expected travel time to a location associated

with the service order and an expected time remaining to complete a current

task, wherein the expected travel time for each respective technician is based on

a location of the respective technician relative to the location associated with the

service order, wherein the location of the respective technician is determined at

least in part from a global positioning location received from a Global Positioning

System (GPS); assign at least one task of the service order to a technician of the

plurality of technicians, wherein the technician is associated with an Incumbent

Local Exchange Carrier (ILEC), wherein the assignment is based at least in part

on the technician statistics of each of the plurality of technicians while the

technician is engaged in the current task; utilize historical work force and work

load statistics to formulate dispatch instructions associated with the service

order; and transfer service instructions associated with the service order via the

dispatch interface to the technician dispatch system.

As for independent **Claim 18**, none of the prior art of record, taken

individually or in any combination, teach, inter alia,

a mobile technician interface configured to communicate with a mobile

technician monitoring system; a processor adapted to execute instructions stored

in memory; and a memory accessible by the processor, the memory storing:

a frame order management system interface including processor-executable

instructions that when executed, cause the processor to directly manipulate a

central office equipment management system via communication with a frame

order management system; a web-based order status reporting interface;

a dispatch module that utilizes historical work force and work load statistics to

formulate dispatch instructions associated with a service request; an assignment

module including processor-executable instructions that when executed, cause

the processor to:assign a first task of the service request via the mobile

technician interface wherein the first task is assigned based at least in part on

Global Positioning System (GPS) data received from a Global Positioning

System (GPS); and assign a second task of the service request via the frame

order management system interface; where the first task or the second task is

assigned to a technician associated with an Incumbent Local Exchange Carrier

(ILEC); and an order status monitoring module including additional processor-

executable instructions that when executed, cause the processor to access the

mobile technician monitoring system via the mobile technician interface to

receive service order completion data associated with the first task and

configured to access the frame order management system via the frame order

management system interface to receive frame order completion data associated

with the second task, and to provide an order status associated with the service

request based on the service order completion data and the frame order

completion data via the web-based order status reporting interface.

As for independent **Claim 38**, none of the prior art of record, taken

individually or in any combination, teach, inter alia,

assigning a first task related to a service request to a first technician via a mobile

technician interface, wherein the first task is assigned based at least in part on a

technician location determined at least in part based on data received from a

Global Positioning System (GPS) locator; assigning a second task related to the

service request to a second technician via a frame order management system

interface, wherein the first technician or the second technician is associated with

an Incumbent Local Exchange Carrier (ILEC); formulating dispatch instructions

based at least in part on historical work force and work load statistics;

accessing a mobile technician monitoring system via the mobile technician

interface to receive service order completion data associated with the first task;

accessing a frame order management system interface to receive frame order

completion data associated with the second task; and providing an order status

associated with the service request based on the service order completion data

and the frame order completion data via a web-based order status reporting

interface.

Weigel teaches scheduling based on using GIS techniques and a

technicians current position. However, Weigel's GIS techniques (i.e. geographic

maps) use the same starting position for scheduling a technician rather than

dispatch the technician based on where the technician's current position is

located. Furthermore Weigel does not teach assigning a technician based on a

historical performance statistic and Weigel does not teach where the technician

is assigned a second service request based on completion data being received

associated with the first service request.being complete. Lesaint teaches

assigning a service request to a technician based on receiving the completion

data for the first task, but Lesaint does not teach taking into account a historical

performance statistic for the technician in assigning a task to that technician.

Bogart teaches taking a historical performance statistic into account in assigning

a task to a technician, but Bogart does not teach using GPS location information

in determining the assignment of a task to a technician. Norand teaches

providing a mobile technician a handheld interface for use in the field for

providing telecommunication services and where the handheld computer can be

used for interfacing with a central computer for the status of orders. However,

Norand does not dispatch technicians based on their location using a GPS input

nor on where the dispatching occurs based on work load statistics. Norand's

invention is primarily concerned with providing technicians with the functionality in

the field to perform their task rather than managing the dispatching and ordering

of the tasks to particular technicians.   Thus even though the cited references

teach different parts of the claimed invention, the combination of the different

cited references would not produce a predictable result to render the claimed

invention obvious.

Any comments considered necessary by applicant must be submitted no

later than the payment of the issue fee and, to avoid processing delays, should

preferably accompany the issue fee. Such submissions should be clearly labeled

"Comments on Statement of Reasons for Allowance."

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

US 6937993 by Gabbita teaches a method and system for tracking

telecommunications service orders.

US 7412400 by Bhela teaches a system and method for providing location

information to consumers.

US 7188070 by Dar teaches a system for providing vehicle location

information.

US 7058508 by Combs teaches a GPS based system for brokering

maintenance services for building maintenance.

US 6925305 by Dawson teaches using a GPS system for the location of

wireless transmitters.

JP 11335020 A by Hasegawa teaches a GPS based system for controlling

workers who are performing maintenance tasks.

8.   Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Jonathan G. Sterrett whose telephone

number is 571-272-6881. The examiner can normally be reached on 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Beth Boswell can be reached on 571-272-6737.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

for published applications may be obtained from either Private PAIR or Public

PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free).

JGS

9-24-08

/Jonathan G. Sterrett/

Primary Examiner, Art Unit 3623